

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-2 (Canceled)

Claim 3 (Currently Amended): An image processing system for processing a color signal extracted from image signals, comprising: The image processing system according to claim 1,

quantizing means for quantizing said color signal over a plurality of quantization regions thereof such that a color difference per unit error caused by quantization of said color signal in each of said plurality of quantization regions is within a predetermined value,

wherein said regions are obtained by computing ~~quantizing means computes~~ said color difference ~~distance in a uniform color space~~ per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 4 (Currently Amended): An image processing system for processing a color signal extracted from image signals, comprising: The image processing system according to claim 1,

quantizing means for quantizing said color signal over a plurality of quantization regions thereof such that a color difference per unit error caused by quantization of said color signal in each of said plurality of quantization regions is within a predetermined value,

wherein said regions are obtained by computing ~~quantizing means obtains~~ said color difference ~~distance in a uniform color space~~ per unit error as an envelope drawn through maximal points of color difference versus color signal plots for all values of G as a parameter among components R, G and B.

Claim 5 (Previously Presented): An image processing system for processing a component color image signal extracted from image signals, comprising:

quantizing means for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of a color difference per unit error caused by quantization of said component color image signal.

Claim 6 (Currently Amended): The image processing system according to claim 5, wherein said regions are obtained by computing ~~quantizing means computes~~ said color difference per unit error by averaging color difference versus component color image signal plots over all values of G as a parameter among components R, G and B.

Claim 7 (Currently Amended): The image processing system according to claim 5, wherein said regions are obtained by computing ~~quantizing means obtains~~ said color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claim 8 (Original): The image processing system according to claim 5, wherein said quantizing means linearly quantizes said component color image signal in at least one of a plurality of quantization regions specified by a value of said component color image signal, as a threshold, corresponding to at least one of a polarity change and a maximum of said polarity change.

Claim 9 (Currently Amended): An image processing system for processing a component color image signal extracted from image signals, comprising:

quantizing means for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a polarity change of said component color image signal, wherein

said quantizing levels are obtained by computing ~~means obtains~~ a color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claims 10-12 (Canceled)

Claim 13 (Previously Presented): An image processing system for processing a plurality of color signals extracted from image signals, comprising:

quantizing means for quantizing one of said plurality of color signals depending on other color signals which are not presently quantized.

Claim 14 (Original): An image processing system for processing a plurality of component color image signals extracted from image signals, comprising:

quantizing means for quantizing one of said plurality of component color image signals depending on a position of said one of said plurality of component color image signals on a plane identified by a subsection of said plane;

said plane being specified by said plurality of component color image signals, as parameters, and divided into a plurality of said subsections with respect to a locus of maximal

points of a color difference per unit error caused by a quantization error of said component color image signal to be presently quantized.

Claim 15 (Original): The image processing system according to claim 14,  
wherein said quantizing means linearly quantizes said component color image signal  
in at least one of said plurality of subsections.

Claim 16 (Previously Presented): An image processing system for processing first  
and second color signals extracted from image signals, comprising:

quantizing means for quantizing said first color signal and a distance of a position  
from a locus of points of equal values of said first and second color signals, said position  
corresponding to said first and second color signals on a plane specified by said first and  
second color signals.

Claim 17 (Previously Presented): The image processing system according to claim  
16,  
wherein said quantizing means quantizes at least one of a difference between first and  
second color signals, and either one of said first and second color signals.

Claim 18 (Canceled)

Claim 19 (Currently Amended): A method for processing a color signal extracted  
from image signals for an image processing system, comprising: The method according to  
claim 18, further comprising:

quantizing said color signal over a plurality of quantization regions thereof such that a color difference per unit error caused by quantization of said color signal in each of said plurality of quantization regions is within a predetermined value; and

computing said color difference ~~distance in a uniform color space~~ per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 20 (Currently Amended): A method for processing a color signal extracted from image signals for an image processing system, comprising: ~~The method according to claim 18, further comprising:~~

quantizing said color signal over a plurality of quantization regions thereof such that a color difference per unit error caused by quantization of said color signal in each of said plurality of quantization regions is within a predetermined value; and

obtaining said color difference ~~distance in a uniform color space~~ per unit error as an envelope drawn through maximal points of color difference versus color signal plots for all values of G as a parameter among components R, G and B

Claim 21 (Previously Presented): A method for processing a component color image signal extracted from image signals for an image processing system, comprising:

quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of a color difference per unit error caused by quantization of said component color image signal.

Claim 22 (Currently Amended): The method according to claim 21, further comprising:

obtaining said regions by computing said color difference per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 23 (Currently Amended): The method according to claim 21, further comprising:

obtaining said regions by computing said color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G as a parameter among components R, G and B

Claim 24 (Previously Presented): The method according to claim 21, further comprising:

linearly quantizing said component color image signal in at least one of a plurality of quantization regions specified by a value of said component color image signal, as a threshold, corresponding to at least one of a polarity change and a maximum of said polarity change.

Claim 25 (Currently Amended): A method for processing a component color image signal extracted from image signals for an image processing system, comprising:

quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a polarity change of said component color image signal; and

obtaining said quantizing levels by computing a color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G as a parameter among components R, G and B.

Claims 26-28 (Canceled).

Claim 29 (Previously Presented): A method for processing a plurality of color signals extracted from image signals for an image processing system, comprising:

quantizing one of said plurality of color signals depending on other color signals which are not presently quantized.

Claim 30 (Previously Presented): A method for processing a plurality of component color image signals extracted from image signals for an image processing system, comprising:

quantizing one of said plurality of component color image signals depending on a position thereof on a plane identified by a subsection of said plane; said plane being specified by said plurality of component color image signals, as parameters, and divided into a plurality of said subsections with respect to a locus of maximal points of a color difference per unit error caused by a quantization error of said component color image signal to be presently quantized.

Claim 31 (Previously Presented): The method according to claim 30, further comprising:

linearly quantizing said component color image signal in at least one of said plurality of subsections.

Claim 32 (Previously Presented): A method for processing first and second color signals extracted from image signals for an image processing system, comprising:

quantizing said first color signal and a distance of a position from a locus of points of equal values of said first and second color signals, said position corresponding to said first and second color signals on a plane specified by said first and second color signals.

Claim 33 (Previously Presented): The method according to claim 32, further comprising:

quantizing at least one of a difference between said first and second color signals, and either one of said first and second color signals.

Claim 34 (Canceled)

Claim 35 (Previously Presented): A computer accessible storage medium storing computer instructions for processing a component color image signal extracted from image signals for an image processing system,

wherein said computer instructions perform at least the step of quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of a color difference per unit error caused by quantization of said component color image signal.

Claim 36 (Previously Presented): A computer accessible storage medium storing computer instructions for processing a plurality of color signals extracted from image signals for an image processing system,

wherein said computer instructions perform at least a step of quantizing one of said plurality of color signals depending on other color signals which are not presently quantized.

Claims 37-38 (Canceled)

Claim 39 (Currently Amended): An image processing system for processing a color signal extracted from signals, comprising: The image processing system according to claim 37,

a quantizing device for quantizing said color signal over a plurality of quantization regions thereof such that a color difference per unit error caused by quantization of said color signal in each of said plurality of quantization regions is within a predetermined value,

wherein said regions are obtained by computing ~~quantizing device computes~~ said ~~distance in a uniform color space~~ color difference per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 40 (Currently Amended): An image processing system for processing a color signal extracted from signals, comprising: The image processing system according to claim 37,

a quantizing device for quantizing said color signal over a plurality of quantization regions thereof such that a color difference per unit error caused by quantization of said color signal in each of said plurality of quantization regions is within a predetermined value,

wherein said ~~quantizing device obtains~~ said color difference distance in a uniform color space per unit error is obtained as an envelope drawn through maximal points of color difference versus color signal plots for all values of G as a parameter among components R, G and B.

Claim 41 (Previously Presented): An image processing system for processing a component color image signal extracted from image signals, comprising:

a quantizing device for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of a color difference per unit error caused by quantization of said component color image signal.

Claim 42 (Currently Amended): The image processing system according to claim 41, wherein said regions are obtained by computing ~~quantizing device computes~~ said color difference per unit error by averaging color difference versus component color image signal plots over all values of G as a parameter among components R, G and B.

Claim 43 (Currently Amended): The image processing system according to claim 41, wherein said regions are obtained by computing ~~quantizing device computes~~ said color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claim 44 (Original): The image processing system according to claim 41,

wherein said quantizing device linearly quantizes said component color image signal in at least one of a plurality of quantization regions specified by a value of said component color image signal, as a threshold, corresponding to at least one of a polarity change and a maximum of said polarity change.

Claims 45 (Currently Amended): And image processing system for processing a component color image signal extracted from image signals, comprising:

a quantizing device for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a polarity change of said component color image signal, wherein

said quantizing levels are obtained by computing ~~device obtains~~ a color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claims 46-48 (Canceled).

Claim 49 (Previously Presented): An image processing system for processing a plurality of color signals extracted from image signals, comprising:

a quantizing device for quantizing one of said plurality of color signals depending on other color signals which are not presently quantized.

Claim 50 (Original): An image processing system for processing a plurality of component color image signals extracted from image signals, comprising:

a quantizing device for quantizing one of said plurality of component color image signals depending on a position of said one of said plurality of component color image signal on a plane identified by a subsection of said plane;

said plane being specified by said plurality of component color image signals, as parameters, and divided into a plurality of said subsections with respect to a locus of maximal points of a color difference per unit error caused by a quantization error of said component color image signal to be presently quantized.

Claim 51 (Original): The image processing system according to claim 50,  
wherein said quantizing device linearly quantizes said component color image signal in at least one of said plurality of subsections.

Claim 52 (Previously Presented): An image processing system for processing first and second color signals extracted from image signals, comprising:

a quantizing device for quantizing said first color signal and a distance of a position from a locus of points of equal values of said first and second color signals, said position corresponding to said first and second color signals on a plane specified by said first and second color signals.

Claim 53 (Previously Presented): The image processing system according to claim 52,

wherein said quantizing device quantizes at least one of a difference between first and second color signals, and either one of said first and second color signals.